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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/318,249	05/25/1999	WILLIAM J. FURNAS	5298-18	1103

7590 12/03/2001

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EXAMINER

LUU, THANH X

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/318,249

Applicant(s)

FURNAS, WILLIAM J.

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2878

DETAILED ACTION

1. In view of the Appeal Brief filed on October 1, 2001, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (a) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (b) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claims 1-7 are currently pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Juvinall et al. (U.S. Patent 4,601,395).

Regarding claim 1, as understood, Juvinall et al. disclose (see Figures 1, 2 and

4) a machine for inspecting the wall of a bottle comprising: a conveyor (see Figure 1) for supporting a bottle at an inspection station, the inspection station including (see Figure 2) a CCD camera (42) on one side of the conveyor having a camera image, a light source (52), having an illumination area, on the other side of the conveyor, for imaging the bottle on the CCD camera image; means for defining on the illumination area light intensities (50) varying between (see Figure 4a) a minimum brightness level (62a) that will permit the identification of a light blocking defect and a maximum brightness level (58a), the brightness level (see Figure 4a) varying spatially, cyclically, and continuously at a rate of change which is less than a rate of change that would be identified as a defect (note in Figure 4a, the brightness level rate of change varies less than a rate of change in the defect 64), computer means (56 of Figure 2) for analyzing the camera image by comparing neighboring pixels to determine the rate of change in brightness level to identify defects where the rate of change exceeds a defined value (see column 4, lines 66 - column 5, line 7, "The information processor 56 generates an event signal when the magnitude of signals from adjacent pixels in a scan differ by more than a preselected threshold.. The information processor 56 performs a connectivity analysis by evaluating the locations of a plurality of events to determine whether a defect is present.")

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Juvinall et al. in view of Ishikawa et al. (U.S. Patent 4,924,083).

Regarding claim 2, Juvinall et al. discloses (see Figure 2 and column 4, lines 50-54) a source (52) disposed within a light source (40). Juvinall et al. also teaches that (see column 4, lines 27-30) "Light source 40... comprises a plurality of incandescent lamps disposed in three columns..." Although Figure 2 shows only one source (52), Juvinall et al. teach that more than one light source in a column configuration is actually used. Juvinall et al. do not specifically teach the use of a plurality of LED rows. Ishikawa et al. disclose (see Figure 18) a light source comprising a plurality of LED rows (40) for a bottle inspection device. Furthermore, it is well known that LEDs provide more efficient illumination. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a plurality of LED rows as the light source of the device of Juvinall et al. in view of Ishikawa et al. to provide more efficient illumination and to reduce operating costs.

Allowable Subject Matter

6. Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments in regard to the 35 U.S.C. 112 rejections of claims 1-7 and the 35 U.S.C. 103(a) rejections of claims 3-7 are now moot since those rejections have been withdrawn.

In regard to the anticipation of claim 1 by Juvinall et al., Applicant argues (see pages 4-5 of the Brief) that the single light source of Juvinall et al. cannot generate an illumination area as claimed since the light source only has a single brightness level.

Examiner disagrees. Applicant claims a light source having an illumination area and a means for defining on the illumination area certain light intensities. Applicant does not claim the light source as the means for defining on the illumination area. Rather, Applicant claims the light source and the means for defining as two separate elements. Applicant also does not claim the light source of the invention generating multiple brightness levels. Rather, Applicant claims means for defining on the illumination area multiple brightness levels. Contrary to Applicant's assertions, Juvinall et al. do disclose (see Figures 2 and 4a) a light source (52) having an illumination area and a means for defining on the illumination area (the filter 40) multiple brightness levels.

In regard to the obviousness of claim 2, Applicant argues (see page 5 of the Brief) that it would not be obvious to substitute a row of LEDs for the single light source of Juvinall et al.

Applicant's arguments in regard to claim 2 are now moot in view of the new grounds for rejection.

Thus, as set forth above, this rejection is proper.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seungsook Ham, can be reached on (703) 308-4090. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
November 21, 2001


SEUNGSOOK HAM
SUPERVISORY PATENT EXAMINER
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